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NEWS 8 DEC 14 BEILSTEIN pricing structure to change
NEWS 9 DEC 17 USPATOLD added to additional database clusters
NEWS 10 DEC 17 IMSDRUGCONF removed from database clusters and IMSDRUGCONF removed from database clusters and STN NEWS 11 DEC 17 DGENE now includes more than 10 million sequences NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment NEWS 13 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary NEWS 14 DEC 17 CA/Caplus enhanced with new custom IPC display formats NEWS 15 DEC 17 STN Viewer enhanced with full-text patent content from USPATOLD NEWS 16 JAN 02 STN pricing information for 2008 now available NEWS 17 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances NEWS 18 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats NEWS 19 JAN 28 MARPAT searching enhanced NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment NEWS 22 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements NEWS 23 FEB 08 STN Express, Version 8.3, now available NEWS 24 FEB 20 PCI now available as a replacement to DPCI NEWS 25 FEB 25 IFIREF reloaded with enhancements NEWS 26 FEB 25 IMSPRODUCT reloaded with enhancements NEWS 27 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

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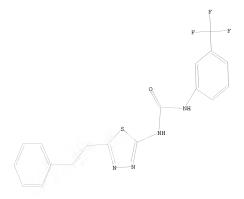
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1 2 3 4 5 6 9 10 11 12 13 17 18 19 20 21 22 chain bonds:
6-7 7-8 8-13 10-14 14-15 15-16 15-23 16-19 21-24 25-26 ring bonds:
1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-13 10-11 11-12 12-13 17-18 17-22 18-19 19-20 20-21 21-22 exact // 19-20 10-13 10-11 10-14 11-12 12-13 14-15 15-16 15-23 16-19 exact // 19-13 10-11 10-14 11-12 12-13 14-15 15-16 15-23 16-19 exact bonds:
6-7 7-8 8-13 21-24 25-26 normalized bonds:
1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22
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Match level: 1:Atom 2:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS

L1 STRUCTURE UPLOADED

=> d 11 L1 HAS NO ANSWERS L1 STR

chain nodes :



Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss ful

FULL SEARCH INITIATED 08:15:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

TOTAL

SINCE FILE

SEARCH TIME: 00.00.01

0 SEA SSS FUL L1

L2 => end

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

STN INTERNATIONAL LOGOFF AT 08:18:43 ON 24 MAR 2008

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                 Web Page for STN Seminar Schedule - N. America
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                 Zentralblatt
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NEWS 4 NOV 15 Derwent Indian patent publication number format enhanced
NEWS 5 NOV 19 WPIX enhanced with XML display format
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NEWS 9 DEC 17 USPATOLD added to additional database clusters
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NEWS 11 DEC 17 DGENE now includes more than 10 million sequences
NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in
                 MEDLINE segment
NEWS 13 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 14
         DEC 17
                 CA/CAplus enhanced with new custom IPC display formats
NEWS 15 DEC 17
                 STN Viewer enhanced with full-text patent content
                 from USPATOLD
NEWS 16
         JAN 02
                 STN pricing information for 2008 now available
NEWS 17 JAN 16 CAS patent coverage enhanced to include exemplified
                 prophetic substances
NEWS 18 JAN 28
                 USPATFULL, USPAT2, and USPATOLD enhanced with new
                 custom IPC display formats
NEWS 19 JAN 28 MARPAT searching enhanced
NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days
                 of publication
NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 22 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
NEWS 23 FEB 08 STN Express, Version 8.3, now available
NEWS 24 FEB 20 PCI now available as a replacement to DPCI
NEWS 25 FEB 25 IFIREF reloaded with enhancements
NEWS 26 FEB 25 IMSPRODUCT reloaded with enhancements
NEWS 27 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                 U.S. National Patent Classification
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FILE 'HOME' ENTERED AT 08:20:38 ON 24 MAR 2008

COST IN U.S. DOLLARS SINCE FILE ENTRY

FULL ESTIMATED COST ENTRY SESSION 0.21 0.21

TOTAL.

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http://www.cas.org/support/stngen/stndoc/properties.html

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ring nodes:
1 2 3 4 5 6 7 8 9 10 11 15 16 17 18 19 20
chain bonds:
5-25 8-12 11-25 12-13 13-14 13-21 14-17 19-22 23-24 25-26
ring bonds:
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-9 9-10 10-11 15-16 15-20 16-17
17-18 18-19 19-20
exact/norm bonds:

7-8 7-11 8-9 8-12 9-10 10-11 12-13 13-14 13-21 14-17 exact bonds: 5-25 11-25 19-22 23-24 25-26 normalized bonds: 1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-20 16-17 17-18 18-19 19-20

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:CLASS 2:CLASS 2:C

L1 STRUCTURE UPLOADED

=> d 11 L1 HAS NO ANSWERS L1 STR

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 0 ITERATIONS 0 ANSWERS SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

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ALL L#_QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS
SINCE FILE TOTAL

 FULL ESTIMATED COST
 ENTRY
 SESSION

 178.82
 179.03

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NE	WS	1			Web Page for STN Seminar Schedule - N. America
NE	WS	2	OCT	02	CA/CAplus enhanced with pre-1907 records from Chemisches
					Zentralblatt
	WS	3	OCT		BEILSTEIN updated with new compounds
	WS	4	NOV		Derwent Indian patent publication number format enhanced
	WS	5	NOV		WPIX enhanced with XML display format
	WS	6	NOV		ICSD reloaded with enhancements
	WS	7	DEC		LINPADOCDB now available on STN
	WS	8	DEC		BEILSTEIN pricing structure to change
	WS	9	DEC		USPATOLD added to additional database clusters
		10	DEC		IMSDRUGCONF removed from database clusters and STN
		11	DEC		DGENE now includes more than 10 million sequences
NE	WS	12	DEC	17	TOXCENTER enhanced with 2008 MeSH vocabulary in
					MEDLINE segment
		13	DEC		MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
		14	DEC		CA/CAplus enhanced with new custom IPC display formats
NE	WS	15	DEC	1/	STN Viewer enhanced with full-text patent content
	17.70	16	JAN	0.0	from USPATOLD
		17	JAN		STN pricing information for 2008 now available CAS patent coverage enhanced to include exemplified
NE	WS	1/	JAN	10	prophetic substances
MIR	T.T.C	18	JAN	20	USPATFULL, USPAT2, and USPATOLD enhanced with new
INE	WO	10	UAIN	20	custom IPC display formats
NE	THE	19	JAN	2.0	MARPAT searching enhanced
		20	JAN		USGENE now provides USPTO sequence data within 3 days
1412	mo	20	UALI	20	of publication
NE	WS	21	JAN	28	TOXCENTER enhanced with reloaded MEDLINE segment
		22	JAN		MEDLINE and LMEDLINE reloaded with enhancements
NE	WS	23	FEB	0.8	STN Express, Version 8.3, now available
		24	FEB		PCI now available as a replacement to DPCI
NE	WS	25	FEB	25	IFIREF reloaded with enhancements
NE	WS	26	FEB	25	IMSPRODUCT reloaded with enhancements
NE	WS	27	FEB	29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current
					U.S. National Patent Classification

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=> file registry

 COST IN U.S. DOLLARS
 SINCE FILE TOTAL SESSION

 FULL ESTIMATED COST
 0.21
 0.21
 0.21

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ring nodes:
1 2 3 4 5 6 7 8 9 10 11 15 16 17 18 19 20
chain bonds:
1 2 3 4 5 6 7 8 9 10 11 15 16 17 18 19 20
chain bonds:
1 2 1 1-22 12-13 13-14 13-21 14-17 15-24 22-23 25-26
ring bonds:
1 -2 1 -6 2 -3 3 -4 4 -5 5 -6 7 -8 7 -11 8 -9 9 -10 10 -11 15 -16 15 -20 16 -17
17-18 18 -19 19 -20
exact/norm bonds:
7 -8 7 -11 8 -9 8 -12 9 -10 10 -11 12 -13 13 -14 13 -21 14 -17
exact bonds:
5 -22 11 -22 15 -24 22 -23 25 -26
normalized bonds:
1 -2 1 -6 2 -3 3 -4 4 -5 5 -6 15 -16 15 -20 16 -17 17 -18 18 -19 19 -20

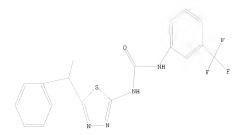
Match level :

chain nodes :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 25:CLASS 26:CLASS 26

L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss ful FULL SEARCH INITIATED 08:27:41 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS SEARCH TIME: 00.00.01

SINCE FILE

ENTRY

TOTAL

SESSION 178.57

L2 0 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST

FULL ESTIMATED COST 178.36

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=> s burgdorf 1?/au 21 BURGDORF L?/AU

=> d 13 ibib abs 1-21

L3 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:702680 CAPLUS

DOCUMENT NUMBER: 147:118272

TITLE: Preparation of diazepinones as PDK1 kinase inhibitors

INVENTOR(S): Schulz, Melanie; Burgdorf, Lars Thore;

Finsinger, Dirk; Blaukat, Andree; Greiner, Hartmut; Esdar, Christina; Kreysch, Hans-Georg; Henzler, Tanja

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: Ger. Offen., 35pp.

CODEN: GWXXBX DOCUMENT TYPE: Patent

LANGUAGE: German FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIN	D	DATE			APP:	LICAT	ION :	NO.		D	ATE	
						_									-		
DE	1020	0506	1655		A1		2007	0628		DE :	2005-	1020	0506	1655	2	0051	222
WO	2007	0798	26		A1		2007	0719		WO :	2006-1	EP11	411		2	0061	128
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ	, EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL	, IN,	IS,	JP,	KE,	KG,	KM,	KN,
		KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT	, LU,	LV,	LY,	MA,	MD,	MG,	MK,
		MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO	, NZ,	OM,	PG,	PH,	PL,	PT,	RO,
		DO	DIT	00	OD	OB	00	OT	OT	034	OTT	037	TT T	TO 6	TENT	TTD.	TT CT

SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: DE 2005-102005061655A 20051222

Ι

OTHER SOURCE(S):

MARPAT 147:118272 GI

AB Title compds. I [R1, R3, R4, R5 = H, halo, CN, etc.; R2 = R6; R6 = H, halo, OH, etc.; X = N, O, S, etc.; Y = NR4, O, S; Z = N, O, S, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, diazepinone II was prepared from 2-nitro-p-anisidine in 6-steps. In pdk1 kinase inhibition assays, 28-examples of compds. I exhibited IC50 values ranging from 0.4-3.6 μM.

L3 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1312199 CAPLUS

DOCUMENT NUMBER: 146:62590

TITLE: Oxindoles as protein kinase inhibitors and their preparation, pharmaceutical compositions and use in

the treatment of diseases

INVENTOR(S): Burgdorf, Lars Thore; Bruge, David; Greiner,

Hartmut; Kordowicz, Maria; Sirrenberg, Christian;

Zenke, Frank

Merck Patent GmbH, Germany PATENT ASSIGNEE(S): PCT Int. Appl., 89pp.

SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2006131186	A1 20061214	WO 2006-EP4423	20060511
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH, GM,	HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KM, KN, KP, KR,
KZ, LC, LK,	LR, LS, LT, LU,	LV, LY, MA, MD, MG,	MK, MN, MW, MX,
MZ, NA, NG,	NI, NO, NZ, OM,	PG, PH, PL, PT, RO,	RU, SC, SD, SE,
SG, SK, SL,	SM, SY, TJ, TM,	TN, TR, TT, TZ, UA,	UG, US, UZ, VC,
VN, YU, ZA,	ZM, ZW		
RW: AT, BE, BG,	CH, CY, CZ, DE,	DK, EE, ES, FI, FR,	GB, GR, HU, IE,
IS, IT, LT,	LU, LV, MC, NL,	PL, PT, RO, SE, SI,	SK, TR, BF, BJ,
CF, CG, CI,	CM, GA, GN, GQ,	GW, ML, MR, NE, SN,	TD, TG, BW, GH,
GM, KE, LS,	MW, MZ, NA, SD,	SL, SZ, TZ, UG, ZM,	ZW, AM, AZ, BY,
KG, KZ, MD,	RU, TJ, TM		
AU 2006254758	A1 20061214	AU 2006-254758	20060511
CA 2611401	A1 20061214	CA 2006-2611401	20060511
EP 1891008	A1 20080227	EP 2006-753563	20060511
R: AT, BE, BG,	CH, CY, CZ, DE,	DK, EE, ES, FI, FR,	GB, GR, HU, IE,
IS, IT, LI,	LT, LU, LV, MC,	NL, PL, PT, RO, SE,	SI, SK, TR
PRIORITY APPLN. INFO.:		EP 2005-12559	A 20050610
		WO 2006-EP4423	W 20060511

OTHER SOURCE(S): MARPAT 146:62590

GI

AB The invention relates to oxindoles of the formula I, their use as protein kinase activators or inhibitors, a method for their manufacture, their use for the preparation of a medicament for the treatment of diseases and their use for the manufacture of a pharmaceutical composition Compos. of formula I wherein

X is

(CH2)p; Rl is (hetero)aryl; R2 is H, (un)branched alkyl, (un)substituted cycloalkyl, aryl, OH and derivs., etc.; R3-R7 are independently H, (un)branched alkyl, (un)substituted cycloalkyl, OH and derivs., aryl, SH and derivs., etc.; and their physiol. acceptable salts, derivs., prodrugs, solvates and stereoisomers, including mixts. thereof, are claimed. Example compound II was prepared from the corresponding benzimidic acid Et ester and oxindole (general procedure given). All the invention compds. were evaluated for their protein kinase inhibitory activity (data given).

REFERENCE COUNT: 5 THEER ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:950636 CAPLUS

DOCUMENT NUMBER: 145:314834

TITLE: Preparation of pyrrolo[3,2,1-ij]quinolines as tyrosine

kinase and Raf kinase inhibitors

INVENTOR(S): Staehle, Wolfgang; Heinrich, Timo; Kordowicz, Maria;

Blaukat, Andree; Burgdorf, Lars, Thore

PATENT ASSIGNEE(S): Merck Patent GmbH, Germany SOURCE: PCT Int. Appl., 103pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA1	TENT	NO.			KIN)	DATE		- 1	APPL	ICAT	ION I	.00		D	ATE	
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
		KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
		MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
		SG,	SK,	SL,	SM,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
		VN,	YU,	ZA,	ZM,	zw											
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM										
DE	1020	0501	1058		A1		2006	0914	1	DE 2	005-	1020	0501	1058	2	0050	310

AU 2006222339 A1 20060914 AU 2006-222339 20060213 CA 2600630 Α1 20060914 CA 2006-2600630 20060213 EP 1856116 20071121 EP 2006-706893 20060213 A1 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR PRIORITY APPLN. INFO.: DE 2005-102005011058A 20050310 WO 2006-EP1281 W 20060213

OTHER SOURCE(S):

CASREACT 145:314834; MARPAT 145:314834

R1 Х R8 R2

Ι

Title compds. I [X = CH, N; R1 = halo, CN, NO2, etc.; R2 = Ar, OR, NHR, etc.; R3 = (CH2)nAr, (CH2)nHet; n = 0-4; R = H, A, Ar, etc.; A = (un) substituted alkyl with provisos] and their pharmaceutically acceptable salts and formulations were prepared For example, three-component coupling of 5-fluoroindoline, 1-viny1-2-pyrrolidone and 3-methoxybenzaldehyde afforded claimed pyrrologuinoline II. In insulin like growth factor I receptor kinase assays, 45-examples of compds. I exhibited IC50 values ranging from 0.0019-2.9x10-5 mol/L.

TT

REFERENCE COUNT: THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS 1 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:364321 CAPLUS

DOCUMENT NUMBER: 144:412515

TITLE: Heterocyclic substituted bisarylurea derivatives as

kinase inhibitors and their preparation,

pharmaceutical compositions, and use for treatment of diseases mediated or propagated by kinases

Stieber, Frank; Jonczyk, Alfred; Hoelzemann, Guenter;

Buchstaller, Hans-Peter; Burgdorf, Lars Thore ; Rautenberg, Wilfried; Greiner, Hartmut

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 232 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PA:	FENT	NO.			KIN	D	DATE			APPL	ICAT	I NOI	NO.		D	ATE	
						-									-		
WO	2006	0400	56		A1		2006	0420		WO 2	005-	EP10	744		2	0051	006
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,

SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM AU 2005293839 A1 20060420 AU 2005-293839 20051006 CA 2584185 A1 20060420 CA 2005-2584185 20051006 EP 1799669 A1 20070627 EP 2005-789864 AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR CN 101039932 Α 20070919 CN 2005-80035117 20051006 MX 200704248 Α 20070612 MX 2007-4248 20070410 KR 2007062998 Α 20070618 KR 2007-708364 20070412 IN 2007KN01680 20070727 IN 2007-KN1680 Α 20070511 EP 2004-24369 PRIORITY APPLN. INFO.: A 20041013 EP 2005-16845 A 20050803 W 20051006 WO 2005-EP10744

OTHER SOURCE(S): MARPAT 144:412515

$$(R^{8})_{p} \xrightarrow{Ar^{1}}_{H} \xrightarrow{H} \xrightarrow{Ar^{2}}_{H} (R^{9})_{q} \xrightarrow{T}$$

AB The invention relates to heterocyclic substituted bisarylurea derivs. of formula I, the use of the compds. of formula I as inhibitors of one or more kinases, the use of the compds. of formula I for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient. Compds. of formula I wherein R4 is (X-Ar3)α-(R10)10; Ar1, Ar2, and Ar3 are independently 5- to 14-membered unsatd, or aromatic cyclic hydrocarbon, or 2- to 10-membered unsatd. or aromatic heterocyclic residue, preferably 1 to 5 heteroatoms selected from N, O, and S; α is 0, 1, or 2; r, z, and p are independently 0, 1, 2, 3, 4 or 5; R7 is nitrogen containing heterocyclic moiety bound directly to Arl via a nitrogen atom, etc.; R8, R9, and R10 are independently H, (alkoxy)alkyl, alkenyl, C3-7 cycloalkyl, alkenylcycloalkyl, halo, CH2halo, CH(halo)2, C(halo)3, NO2, etc.; Y is O, S, NH and derivs., (un)substituted CHNO2, (un)substituted CHCN, or C(CN)2; g is 1, 2, or 3; q is 0, 1, 2, 3 or 4; and their pharmaceutically acceptable derivs., salts and solvates thereof are claimed in this

invention. Example compound II was prepared by chlorination and esterification of pyridine-2-carboxylic acid to give Me 4-chloropyridine-2-carboxylate, which underwent amidation with methylamine to give 4-chloropyridine-2-carboxylic acid methylamide, which was reacted with 4-aminophenol; the resulting 4-(4-aminophenoxy)pyridine-2-carboxylic acid methylamine reacted with p-nitrophenyl chloroformate and 4-(2-amino-4-trifluoromethylphenyl)-1,2,4-triazole to give example compound II. All the invention compds, were evaluated for their activity as modulators and inhibitors of kinases. From the assav, it was determined that

these compds, preferably inhibit VEGF-stimulated mitogenesis of human vascular endothelial cells in cultures with IC50 values of 0.01-5.0 uM. REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:1350605 CAPLUS

144.69837

DOCUMENT NUMBER:

TITLE: Preparation of 3-aminoindazoles as serum and

glucocorticoid-regulated kinase (SGK) inhibitors INVENTOR(S): Dorsch, Dieter; Burgdorf, Lars Thore;

Gericke, Rolf; Beier, Norbert; Mederski, Werner; Lang,

Florian PATENT ASSIGNEE(S): Merck Patent GmbH, Germany PCT Int. Appl., 136 pp. SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

								DATE				LICAT					ATE	
	WO	2005	1236	88		A2						2005-1					0050	404
			AE, CN, GE, LC, NI,	AG, CO, GH, LK, NO, SY,	AL, CR, GM, LR, NZ,	AM, CU, HR, LS, OM,	AT, CZ, HU, LT, PG,	AU, DE, ID, LU, PH,	AZ, DK, IL, LV, PL,	BA, DM, IN, MA, PT,	DZ IS MD RO	, BG, , EC, , JP, , MG, , RU, , UG,	EE, KE, MK, SC,	EG, KG, MN, SD,	ES, KM, MW, SE,	FI, KP, MX, SG,	GB, KR, MZ, SK,	GD, KZ, NA, SL,
		RW:	BW, AZ, EE, RO,	GH, BY, ES, SE,	KG, FI, SI,	KZ, FR,	MD, GB, TR,	RU, GR,	TJ, HU,	TM, IE,	AT IS	, SL, , BE, , IT, , CI,	BG, LT,	CH, LU,	CY, MC,	CZ, NL,	DE, PL,	DK, PT,
	AU CA	2005 2570	0402 2546 264	8862 17		A1 A1 A1		2005 2005	1229 1229		AU CA	2004-1 2005-1 2005-1 2005-1	2546: 2570:	17 264		2	0050	404 404
	TN	2008	IS, 5026 KN03	IT, 10	LI,	LT, T	LU,	MC, 2008	NL, 0131	PL,	PT JP IN	, ES, , RO, 2007-5	SE, 5157: KN35	SI, 92	SK,	TR,	LV 0050-	404 124
RIOF	ITY	2007 APP	LN.	INFO	.:						DE	2006-6 2004-1 2005-1	1020	0402	8862	A 2	00406	515

OTHER SOURCE(S): MARPAT 144:69837

AB Title compds. I [Y = W-R1; X = H, halo, NO2, etc.; R1 = carbocycle, heterocycle, etc.; W = [C(R2)2]n-[C(R2)2]nCONR2[C(R2)2]n, etc.; R2 = H, A, etc.; A = alkyl, alkylene, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, coupling of carboxylic acid II and 3-chlorobenzylamine afforded aminoindazole III. Compds. I are claimed to be useful as glucocorticoid-regulated kinase (SGK) inhibitors (no data provided).

L3 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1002884 CAPLUS

DOCUMENT NUMBER: 143:306318

TITLE: Preparation of thiadiazole urea derivatives for use in

controlling signal transduction of kinases

INVENTOR(S): Burgdorf, Lars; Buchstaller, Hans-Peter; Stieber, Frank; Anzali, Soheila; Amendt, Christiane;

Greiner, Hartmut; Grell, Matthias; Sirrenberg,

Christian; Zenke, Frank

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

Ger. Offen., 32 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

German

LANGUAGE: Germa FAMILY ACC. NUM. COUNT: 1

PARTIE ACC. NON. COOMI. I

PATENT INFORMATION:

SOURCE:

	TENT I				KIN	D	DATE			APPL	ICAT					ATE		
	1020				A1	_	2005	0915		DE 2						0040		
AU	2005	2194	99		A1		2005	0915		AU 2	005-	2194	99		2	0050	131	
CA	2557	303			A1		2005	0915		CA 2	005-	2557	303		2	0050	131	
WO	2005	0852	20		A1		2005	0915		WO 2	005-	EP90	В		2	0050	131	
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	
		SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
							RU,											
		EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	
							BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	
	RO, SE, S MR, NE, S				TD,	TG												

EP 1720846 A1 20061115 EP 2005-701263 20050131 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR 20050131 JP 2007523922 т 20070823 JP 2007-500082 US 2007191353 A1 20070816 US 2006-590729 20060825 PRIORITY APPLN. INFO.: DE 2004-102004009933A 20040226 WO 2005-EP908 20050131

OTHER SOURCE(S):

CASREACT 143:306318; MARPAT 143:306318

Use of compds. I [Arl = (un)substituted Ph, naphthyl, biphenyl or heterocycle (substituted with 1-5 R1); Ar2 = (un)substituted Ph. naphthyl, biphenyl or heterocycle (substituted with 1-5 R2); Y = O, S, CHNO2, C(CN)2, NR4; Z = 0, S, CH2(CH2)n, (CH2)nCHA, CHA(CH2)n, C:0, CHOH, (CHA)nO, (CH2)nO, O(CHA)n, etc.; R1, R2 = A, Ar', OR3, OAr', SAr', N(R3)2, NHAr', halogen, NO2, CN, (CH2)nCO2H, (CH2)nCON(R3)2, (CH2)nCONHR3, etc.; R3 = H, A, (CH2) nAr'; R4 = H, CN, OH, A, (CH2) mAr', COR3, COAr', S(0) mA, S(O)mAr'; Ar' = (un)substituted Ph (optionally substituted 1-5 times with A, Ph, OH, OA, SHH, SA, OPh, SPh, NH2, NHA, NA2, NHPh, halogen, NO2, CN, (CH2) nCO2H), (CH2) nA, CHO, COA, S(O) mA, S(O) mPh, NHCOA, NHCOPh, NHSO2A, NHSO2Ph, SO2NH; Ph = (un)substituted (optionally substituted 1-5 times with A, halogen, CN, CO2R, CO2H, NH2, NO2, OH, OA); Het1 = (un)substituted heterocycle with 1- to 4-heteroatoms (N, O, S; optionally substituted 1 to 3 times with halogen, A, OA, CN, (CH2)nOH, (CH2)n-halogen, NH2, :NH, :NOH, :NOA, :O); A = C1-10-alkyl (whereby 1 - 7 H's can be replaced with F or C1); halogen = F, C1, Br, I; n=0-5; m=0, 1, 2] and their pharmaceutically acceptable salts, solvates, and stereoisomers, for the prophylaxis and/or treatment of diseases, with which the inhibition, control and/or modulation of the signal transduction of kinases, in particular the RAF kinases, play a role. A method for preparation of I comprises: (a) reaction of carbamic acid derivative II (L = OA, Cl, Br, I, OH derivative) with ArlNH2; or (b) carbamylation of thiadiazolamine III with

AriNCO. Thus, 1-[5-(3,4-dimethoxybenzyl)-[1,3,4]-thiadiazol-2-yl]-3-[3-(trifluoromethoxy)phenyl]urea (IV) was prepared from (3,4-dimethoxyphenyl)acetonitrile, via cyclocondensation with thiosemicarbazide in CF2COZH to the 5-(3,4-dimethoxybenzyl)-[1,3,4]-thiadiazole, carbonylation with p-nitrophenyl chloroformate in CH2C12 containing pyridine followed by amidation with 3-(trifluoromethoxy)aniline in CH2C12 containing EtN(CHMe2)2.

L3 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:979621 CAPLUS

DOCUMENT NUMBER: 143:266924

TITLE: Preparation of ureidoalkyl-substituted benzimidazole

derivatives as kinase inhibitors

INVENTOR(S): Buchstaller, Hans-Peter; Burgdorf, Lars;

Stieber, Frank; Amendt, Christiane; Grell, Mathias; Sirrenberg, Christian; Zenke, Frank

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 157 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

	ON THE					DATE						NO.			ATE		
WO 2	2005082	2862		A2					viO 2	005-1	EP14	45		2	0050	214	
	W: Ai CI GI LI NO SI RW: BU	E, AG, N, CO, E, GH, K, LR, O, NZ, Y, TJ, W, GH, Z, BY, E, ES,	AL, CR, GM, LS, OM, TM, GM, KG,	AM, CU, HR, LT, PG, TN, KE, KZ, FR,	AT, CZ, HU, LU, PH, TR, LS, MD, GB,	AU, DE, ID, LV, PL, TT, MW, RU, GR,	AZ, DK, IL, MA, PT, TZ, MZ, TJ, HU,	BA, DM, IN, MD, RO, UA, NA, TM, IE,	DZ, IS, MG, RU, UG, SD, AT, IS,	EC, JP, MK, SC, US, SL, BE, IT,	EE, KE, MN, SD, UZ, SZ, BG, LT,	EG, KG, MW, SE, VC, TZ, CH, LU,	ES, KP, MX, SG, VN, UG, CY, MC,	FI, KR, MZ, SK, YU, ZM, CZ, NL,	GB, KZ, NA, SL, ZA, ZW, DE, PL,	GD, LC, NI, SM, ZM, AM, DK, PT,	ZW
CA 2	MI 200521 2557391	3	SN,	TD, A1 A1	TG	2005 2005	0909 0909		AU 2	005-: 005-:	2170 2557	42 398		2	0050 0050	214 214	
JP 2	2007523	I, BE, E, SI, 3929	CH, LT,	DE, FI, T	DK, RO,	ES, CY, 2007	FR, TR, 0823	GB, BG,	GR, CZ, JP 2	IT, EE,	LI, HU, 5000	LU, PL, 97	NL, SK,	SE, IS	MC,	PT, 214	
PRIORITY	US 2007191444 RIORITY APPLN. INFO.:								EP 2	004-	4332 4967	98 45	1	A 2	0040 0040	226 303	

OTHER SOURCE(S): MARPAT 143:266924

GI

$$(\mathbb{R}^{9})_{\overline{\mathbf{p}}} \, \mathbb{Ar}^{1} \overset{H}{\underset{\Upsilon}{\overset{H}{\bigvee}}} \, \mathbb{E}^{D} \overset{\mathbb{R}^{9} \setminus \mathbf{q}}{\underset{H}{\bigvee}} \, \mathbb{R}^{10}$$

AB Title compds. I [Ar1 = aromatic hydrocarbon; E, D = divalent alkyl; R8-10 = H, cyloalkyl, halo, alkylhalo, etc.; Y = O, S, etc.; p = 0-5; q = 0-4] are prepared For instance, N-[2-(4-nitrophenyl)ethyl]acetamide is reduced, acetylated and deacylated to give 4-(2-aminoethyl)-3-nitroaniline. This is converted to the urea with 4-chloro-3-(trifluoromethyl)isocyanate and subsequently reduced to the corresponding diamine. Treatment of this with cyanogen bromide and subsequent acetylation provide example compound II. I are modulators of, e.g., A-Raf, B-Raf, Tie-1, etc. kinases [no data] and are useful for the treatment of cancer.

L3 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:979617 CAPLUS

DOCUMENT NUMBER: 143:286297
TITLE: Preparation of isoquinoline derivatives as kinase

inhibitors
INVENTOR(S): Buchstaller.

Buchstaller, Hans-Peter; Burgdorf, Lars; Finsinger, Dirk; Amendt, Christiane; Grell, Matthias;

Sirrenberg, Christian; Zenke, Frank

Sirrenberg, Christian; Zenke, Fra Merck Patent G.m.b.H., Germany

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., SOURCE: PCT Int. Appl., 141 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT				KIN	D	DATE			APPL					D	ATE		
	2005	0828	58		A2 A3		2005 2005	0909		WO 2		EP98			2	0050		
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
	GE, GH,		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	
		SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	Z
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	
		MR,	NE,	SN,	TD,	TG												

AU 2005217033 A1 20050909 AU 2005-217033 CA 2555720 A1 20050909 CA 2005-2555720 EP 1718616 A2 20061108 EP 2005-707121 20050201 20050201 20050201 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS JP 2007523923 T 20070823 JP 2007-500085 20050201 US 2006-590797 US 2007191423 A1 20070816 20060825 PRIORITY APPLN. INFO .: EP 2004-4412 WO 2005-EP983 A 20040226 W 20050201 CASREACT 143:286297; MARPAT 143:286297 OTHER SOURCE(S):

GI SOURCE (S)

CASREACT 143:28629/; MARPAT 143:28629/

$$(R^1)_{\mathfrak{m}} Ar^1 \underset{H}{\overset{Y}{\underset{N}{\longrightarrow}}} \overset{(R^3)_{p}}{\underset{R^2)_{n}}{\longrightarrow}}$$

AB Title compds. I [Arl = (un)substituted aryl; E = (un)substituted aliphatic linker of 1-2 carbons; D = (un)substituted aliphatic linker of 0-1 carbons; Y = 0, S, C(CN)2, etc.; Rl-3 independently = H, halo, NO2, etc.; m and p independently = 0-5; n - 0-4], and their pharmaceutically acceptable salts, are prepared and disclosed as kinase inhibitors (no data). Thus, e.g., II was prepared by reaction of 4-chloro-3-trifluoromethylphenylisocyanate with N-methyl-7-(2-aminoethyl)isoquinolin-3-carboxamide (prepn given). Pharmaceutical compns. of I, and a method of treatment, comprising administering said pharmaceutical composition to a patient are further disclosed.

L3 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:823661 CAPLUS

DOCUMENT NUMBER: 143:229726

TITLE: Preparation of 1,3-diarylureas as inhibitors of raf and other kinases useful against cancer and other

and other kinases userul against cancer and other diseases

INVENTOR(S): Buchstaller, Hans-Peter; Burgdorf, Lars;

Stieber, Frank; Amendt, Christiane; Grell, Matthias;

Sirrenberg, Christian; Zenke, Frank

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 264 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO	2005	0754	25		A2		2005	0818		WO 2	005-	EP38	7		2	0050	117	
WO	2005	0754	25		A3		2006	1214										
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	SM
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
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		MR,	NE,	SN,	TD,	TG												
AU	2005	2114	48		A1		2005	0818		AU 2	005-	2114	48		2	0050	117	
CA	2554	878			A1		2005	0818		CA 2	005-	2554	878		2	0050	117	
EP	1730	111			A2		2006	1213		EP 2	005-	7009	67		2	0050	117	
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
		IS,	IT,	LI,	LT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	AL,	BA,	
		HR,	LV,	MK,	YU													
CN	1972	925			A		2007	0530		CN 2	005-	8000	2901		2	0050	117	
BR	2005	0071	98		A		2007	0626		BR 2	005-	7198			2	0050	117	
JP	2007	5196	53		T		2007	0719		JP 2	006-	5499	97		2	0050	117	
US	2007	1616	77		A1		2007	0712		US 2	006-	5872	92		2	0060	725	
MX	2006	PA08	449		A		2006	1002		MX 2	006-	PA84	49		2	0060	726	
IN	2006	KN02	441		A		2007	0525		IN 2	006-	KN24	41		2	0060	828	
PRIORIT:	Y APP	LN.	INFO	. :						EP 2	004-	2092			A 2	0040	130	
										WO 2	005-	EP38	7		W 2	0050	117	
OTHER SO	DURCE	(S):			MAR	PAT	143:	2297:	26									

$$\begin{array}{c} R_{Q}^{Q} \\ R_{Q}^{T} - Ar^{1} - NH \cdot C(Y) - NH \\ \end{array} \begin{array}{c} R_{Q}^{Q} \\ R_{Q}^{Q} \end{array} \begin{array}{c} I \\ NH \\ O \end{array} \begin{array}{c} NH$$

AB The present invention relates to bisarylurea derivs. (shown as I; variables defined below; e.g. 4-[4-3-[4-chloro-5-methyl-2-(2-methylaminoethoxy]phenyllureido]phenoxy]pyridine-2-carboxylic acid methylamide (shown as II)), their use as inhibitors of raf-kinase (no data) and for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient. Methods of preparation are claimed and >100 example prepns, are included. For example, 1-[2-|2-[(tert-butoxycarbonyl)(methyl)amino]ethoxy]-5-(trifluoromethyl)phenyl]-3-[4-[[2-(methylcarbamoyl)pyridin-4-yl]oxy]phenyllurea was prepared (87 %) by reacting tert-Bu [2-[2-mino-4-(trifluoromethyl)phenoxy]ethyl] (methyl)carbamate (preparation

Ι

given) with p-nitrophenyl chloroformate followed by N-methyl-4-(4aminophenoxy)pyridine-2-carboxamide (preparation given) and DIPEA; deprotection gave 86 % 1-[2-[2-(methylamino)ethoxy]-5-(trifluoromethyl)phenyl]-3-[4-[[2-(methylcarbamoyl)pyridin-4-yl]oxy]phenyl]urea. For I: Ar1, Ar2 = aromatic hydrocarbons containing 6 to 14 C atoms and ethylenic unsatd. or aromatic heterocyclic residues containing 3 to 10 C atoms and one or two heteroatoms, = N, O and S; E, G, M, Q and U = C and N atoms, with the proviso that ≥1 of E, G, M, Q and U are C atoms and that X is bonded to a C atom. R7 = Het, OHet, N(R11)Het, (CR5R6)kHet, et al. or R7 = -SO2-CR8:CR8-, wherein both valencies are bound vicinally to Ar1; R8, R9 and R10 = H, A, cycloalkyl comprising 3 to 7 C atoms, Hal, et al.; Y = O, S, NR21, C(R22)-NO2, C(R22)-CN and C(CN)2; q = 1-3, preferably 1 or 2, p, r = 0.5; q = 0.4, preferably 0, 1 or 2; addnl. details are given in the claims.

L3 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:567162 CAPLUS

DOCUMENT NUMBER: 143:97170

TITLE: Preparation and formulations of diacylhydrazine derivatives capable of inhibiting raf-kinases Finsinger, Dirk; Buchstaller, Hans-Peter; INVENTOR(S): Burgdorf, Lars; Amendt, Christiane; Grell, Matthias; Sirrenberg, Christian; Zenke, Frank

Merck Patent G.m.b.H., Germany PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 189 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION: -----

PAT	TENT :	NO.			KIN)	DATE					ION I			D.	ATE	
WO	2005	0588	32		A1										2	0041	111
							AU,										
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR.	HU,	ID,	IL,	IN,	IS.	JP,	KE.	KG,	KP,	KR.	KZ,	LC,
		LK.	LR.	LS.	LT.	LU.	LV,	MA.	MD.	MG.	MK.	MN.	MW.	MX.	MZ.	NA.	NI.
							PL,										
							TZ,										
	RW:						MW.										
		AZ.	BY.	KG.	KZ.	MD.	RU,	TJ.	TM.	AT.	BE.	BG.	CH.	CY.	CZ.	DE.	DK.
							GR,										
							BJ,										
				TD.		,	,	,	,	,	,	,	,	-~,	,	,	,
AU	2004						2005	0630		AU 2	004-	2991	74		2	0041	111
	2548															0041	
	1692															0041	111
							ES,										
							TR.								,	,	,
.TP	2007														2	0041	111
	2007															0060	
	Y APP											2826					
			1111	• •								EP12				0041	
															. 2	0041	

PRI

OTHER SOURCE(S): CASREACT 143:97170; MARPAT 143:97170

The present invention discloses diacylhydrazine derivs. of formula I [D =bivalent diacylhydrazine moiety, or a derivative thereof; A = (un)substituted moiety of formula -L-(ML1)n, where L = aryl, heteroaryl, arylene, and heteroarylene bound directly to D, L1 = (un) substituted aryl, heteroaryl, aralkyl, cycloalkyl, and heterocyclyl, M = bond or linker, n - 1-4; B = (un) substituted up to tricyclic arvl or heteroarvl], methods to prepare them, and their use as inhibitors of raf-kinase (no data). Thus, e.g., II was prepared by substitution of (4-chloropyridine-2-carboxylic acid)methylamide (preparation given) with 3-hydroxybenzoic acid Et ester followed by hydrolysis, esterification with pentafluorophenol and reaction with 3-bromobenzhydrazide. The use of I for the manufacture of a pharmaceutical composition and a method of treatment, comprising administering said pharmaceutical composition to a patient, are further disclosed.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:469894 CAPLUS

DOCUMENT NUMBER: 143:7592

TITLE: Preparation of arylpyrrolecarboxamides as Raf kinase

inhibitors for treatment of tumors.

INVENTOR(S): Finsinger, Dirk; Buchstaller, Hans-Peter;

Burgdorf, Lars; Wiesner, Matthias; Amendt, Christiane; Grell, Matthias; Sirrenberg, Christian;

Zenke, Frank

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

Ger. Offen., 32 pp.

SOURCE: CODEN: GWXXBX

DOCUMENT TYPE: Patent. LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
DE 10354060	A1 20050602	DE 2003-10354060	20031119
AU 2004291255	A1 20050602	AU 2004-291255	20041026
CA 2546334	A1 20050602	CA 2004-2546334	20041026
WO 2005049603	A1 20050602	WO 2004-EP12076	20041026
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW, BY,	BZ, CA, CH,
CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG, ES,	FI, GB, GD,
GE, GH, GM,	HR, HU, ID, IL,	IN, IS, JP, KE, KG, KP,	KR, KZ, LC,
LK, LR, LS,	LT, LU, LV, MA,	MD, MG, MK, MN, MW, MX,	MZ, NA, NI,
NO, NZ, OM,	PG, PH, PL, PT,	RO, RU, SC, SD, SE, SG,	SK, SL, SY,
TJ, TM, TN,	TR, TT, TZ, UA,	UG, US, UZ, VC, VN, YU,	ZA, ZM, ZW
RW: BW, GH, GM,	KE, LS, MW, MZ,	NA, SD, SL, SZ, TZ, UG,	ZM, ZW, AM,
AZ, BY, KG,	KZ. MD. RU. TJ.	TM, AT, BE, BG, CH, CY,	CZ. DE. DK.

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EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     EP 1685125
                                20060802
                                           EP 2004-790859
                          A1
                                                                   20041026
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     CN 1882571
                          Α
                               20061220
                                            CN 2004-80034345
                                                                   20041026
     BR 2004016690
                          Α
                               20070130
                                            BR 2004-16690
                                                                   20041026
     JP 2007511553
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                               20070510
                                            JP 2006-540216
                                                                   20041026
     IN 2006KN00936
                          Α
                                20070420
                                           IN 2006-KN936
                                                                   20060417
     MX 2006PA05478
                          Α
                                20060811
                                            MX 2006-PA5478
                                                                   20060515
                               20070628
     US 2007149594
                         A1
                                            US 2006-579825
                                                                   20060517
PRIORITY APPLN. INFO.:
                                            DE 2003-10354060
                                                                A 20031119
                                            WO 2004-EP12076
                                                                W 20041026
OTHER SOURCE(S):
                       MARPAT 143:7592
GT
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AB Title compds. [I; Ar = (substituted) Ph, naphthyl, biphenyl, heterocyclyl; X = 0, S, (CH2)n, CO, (CH2)nO, (CH2)nNH, etc.; n = 1-3; Y = 0, S, CHNO2, C(CN)2, NR4; R4 = H, cyano, OH, etc.; Z = Ar, ArXAr, CH2Ar, CH2ArXAr; Ar = (substituted) Ph], were prepared as Raf kinase inhibitors (no data). Thus, 4-(PhCH2O)C6H4CH2CO2H, DMF, and POC13 were heated together at 70° for 4 h followed by cooling and addition of ice water and aqueous NaClO4 to

give 98% [2-(4-benzyloxyphenyl)-3-dimethylaminoallylidene]dimethylammonium perchlorate. This was refluxed 24 h with glycine Et ester hydrochloride in EtOH containing 20% NaOEt to give 91% Et 4-(4-benzyloxyphenyl)-1H-pyrrole-2carboxylate. Hydrogenolysis of the latter in EtOAc over Pd/C gave 91% Et 4-(4-hydroxyphenyl)-1H-pyrrole-2-carboxylate. This was heated with 4-chloropyridine-2-carboxylic acid N-methylamide at 160° for 48 h to give 40% Et 4-[4-(2-methylcarbamovlpvridin-4-vloxy)phenyl]-1H-pyrrole-2carboxylate. Saponification with 2N NaOH in EtOH at 60° for 16 h followed by acidification with HCl gave 85% free acid, which was stirred 48 h in DMF with 5-amino-2-chlorobenzotrifluoride, N-(3-dimethylaminopropyl)-N'ethylcarbodiimide hydrochloride, and 1-hydroxybenzotriazole hydrate to give 17% 4-[4-[5-(4-chloro-3-trifluoromethylphenylcarbamoyl)-1H-pyrrol-3vl]phenoxv]pyridine-2-carboxylic acid N-methylamide.

L3 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

Ι

ACCESSION NUMBER: 2005:371211 CAPLUS

DOCUMENT NUMBER: 142:429927

TITLE: Preparation of acylhydrazones as modulators of

glucocorticoid inducible kinase (SGK) INVENTOR(S):

Gericke, Rolf; Beier, Norbert; Poeschke, Oliver; Burgdorf, Lars; Drosdat, Helga; Lang, Florian

PATENT ASSIGNEE(S): Merck Patent GmbH, Germany SOURCE:

PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE: Patent LANGUAGE: German

GI

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PA							DATE				PLICAT				D	DATE				
WO		A1 2005042								20040916										
	W: AE, AG, AL,																			
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	D2	z, EC,	EE,	EG,	ES,	FI,	GB,	GD,			
											3, JP,									
											G, MK,									
											J, SC,									
											s, UZ,									
	RW:), SL,									
											Γ, BE,									
											C, LU,									
						ВJ,	CF,	CG,	CI,	CI	1, GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,			
			TD,																	
DE	DE 10346913					A1 20050504					DE 2003-10346913						20031009			
AU	2004	2819	06		A1 20050428					AU	2004-	2819		2	0040	916				
CA	CA 2542106					A1 20050428					2004-		20040916							
EP									EP 2004-765298 GB, GR, IT, LI, LU, I											
	R:																PT,			
											CZ,									
CN	1863	764			A	2006	1115		CN	2004-		2	20040916							
BR	2004	0151	19		A	2006	1128	BR 2004-15119 JP 2006-529992 KR 2006-706033						2	0040	916				
JP	2007	5090	37		Т		2007		JP 2006-529992					2	0040	916				
KR	KR 2007029106						2007	0313		KR	2006-	7060	33		2	0060	328			
MX	MX 2006PA03789						2006	0614		MX	2006-	PA37	89		2	0060	404			
	US 2007060646																			
	IN 2006KN01179						2007	0427		TN	2006-	KNII	19		. 2	0060	505			
PRIORIT	PRIORITY APPLN. INFO.:																			
OTHER S	OTHER SOURCE(S):						MARPAT 142:4299				WO 2004-EP10398 27						W 20040916			

Title compds. I [R1, R5 = H, OH, CH3, etc.; R2, R3, R4, R6, R7, R8, R9, R10 = H, OH, OCF3, etc.; R11 = H, CH3; X = CH2, CH2CH2, OCH2, etc.] and their pharmaceutically acceptable salts and formulations were prepared For example, condensation of 4-hydroxy-2-methoxybenzaldehyde and (3-hydroxyphenyl)acetic acid hydrazide, afforded claimed acylhydrazone II in 75% yield. Compds. I are claimed to be useful in the modulation

glucocorticoid inducible kinase (SGK). REFERENCE COUNT: THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS 16

I

L3 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:55062 CAPLUS

DOCUMENT NUMBER: 142:134604

TITLE: Preparation of benzimidazole amides as raf kinase

inhibitors Buchstaller, Hans-Peter; Finsinger, Dirk; Wiesner,

INVENTOR(S): Matthias; Burgdorf, Lars; Amendt,

Christiane; Grell, Matthias; Sirrenberg, Christian;

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Zenke, Frank

Merck Patent GmbH, Germany PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 145 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.						KIN	D	DATE			APPL	ICAT	DATE					
							-											
	WO 2005004864					A1 20050120					WO 2	004-	20040615					
		W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
			NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
			TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
              AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
              SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
              SN. TD. TG
     AU 2004255403
                                   20050120
                                                AU 2004-255403
                            A1
                                                                         20040615
                                                CA 2004-2531859
     CA 2531859
                            A1
                                                                         20040615
     EP 1653951
                            A1
                                   20060510
                                                EP 2004-739891
                                                                         20040615
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     JP 2007513054
                            Т
                                   20070524
                                                JP 2006-519783
                                                                         20040615
     US 2007010560
                            A1
                                   20070111
                                                US 2006-564185
                                                                         20060807
     US 2007156268
                            A1
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                                                                         20061128
                            A1
PRIORITY APPLN. INFO.:
                                                EP 2003-15582
                                                                      A 20030711
                                                WO 2004-EP6419
                                                                      W 20040615
                                                US 2005-740014P
                                                                      P 20051128
OTHER SOURCE(S):
                          CASREACT 142:134604; MARPAT 142:134604
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GI

AB Title compds. I [R6-7 = H, A, SO2A; A = alkyl, alkenyl, cycloalkyl, etc.; Ar2 = aromatic hydrocarbon; R8-10 = H, A, cycloalkyl, etc.; X = divalent alkyl, etc.; p, n = 0-5; q = 0-4] are prepared For instance, II is prepared from the corresponding 2-aminoimidazole and carboxylic acid (DMF, TBTU, HOBt, 1-PZNBTL). I are raf kinase inhibitors and are useful for the treatment of cancer.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2002:869840 CAPLUS

ACCESSION NUMBER: 2002:86984 DOCUMENT NUMBER: 138:283104

TITLE: Cleavable substrate containing molecular beacons for the quantification of DNA-photolyase activity

AUTHOR(S): Kundu, Lal Mohan; Burgdorf, Lars T.;

Kleiner, Oliver; Batschauer, Alfred; Carell, Thomas CORPORATE SOURCE: Fachbereich Chemie, Philipps-Universitat Marburg,

Marburg, 35032, Germany

SOURCE: ChemBioChem (2002), 3(11), 1053-1060 CODEN: CBCHFX; ISSN: 1439-4227

Wiley-VCH Verlag GmbH & Co. KGaA PUBLISHER:

DOCUMENT TYPE: Journal

LANGUAGE: English

To gain deeper insight into the function and interplay of proteins in cells it is essential to develop methods that allow the profiling of protein function in real time, in solution, in cells, and in cell organelles. Here the authors report the development of a U-type oligonucleotide (mol. beacon) that contains a fluorophore and a quencher at the tips, and in addition a substrate analog in the loop structure. This substrate analog induces a hairpin cleavage in response to enzyme action, which is translated into a fluorescence signal. The mol. beacon developed here was used to characterize DNA-photolyase activity. These enzymes represent a challenge for anal. because of their low abundance in cells. The mol. beacon made it possible to measure the activity of purified class I and class II photolyases. Photolyase activity was even detectable in crude

cell exts. REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:418594 CAPLUS

DOCUMENT NUMBER: 137:243521

TITLE: Weak distance dependence of excess electron transfer

in DNA

AUTHOR(S): Behrens, Christoph; Burgdorf, Lars T.;

Schwogler, Anja; Carell, Thomas CORPORATE SOURCE: Fachbereich Chemie Philipps-Universitat Marburg,

Marburg, 35032, Germany

Angewandte Chemie, International Edition (2002), SOURCE:

41(10), 1763-1766

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

AB Remote reductive repair of thymine dimers in a DNA duplex by transfer of excess electrons over a distance of up to roughly 24 Å (n = 7) has

been attributed to thermally activated hopping (see scheme). Possible consequences for humans: the harmful effect of UV irradiation responsible for the development of skin cancer could potentially be reduced by compds.

that bind to DNA and trigger long-range electron transport.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:62884 CAPLUS

DOCUMENT NUMBER: 136:243409

TITLE: Synthesis, stability, and conformation of the formamidopyrimidine G DNA lesion

AUTHOR(S): Burgdorf, Lars T.; Carell, Thomas

Fachbereich Chemie Philipps-Universitat Marburg, CORPORATE SOURCE:

Marburg, 35032, Germany

Chemistry--A European Journal (2002), 8(1), 293-301 SOURCE:

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:243409

AB The formamidopyrimidine (FapydGua) lesion, derived from the nucleobase quanine, is a major DNA lesion involved in mutagenesis and carcinogenesis.

To date, the chemical information available about this main lesion is very limited. Herein, we describe a synthesis and a detailed characterization of the acetyl-protected monomer of the FapydGua lesion. Stability studies in DMSO and in water/acetonitrile show that the N-glycosidic bond, previously thought to be highly labile, is much more stable than anticipated. Decomposition of the FapydGua lesion proceeds with half-life times of 37.8 h for the β -anomer and 65.2 h for the α -anomer in water/acetonitrile. The relaxation time for the anomerization reaction was determined to $\tau = 6.5$ h at room temperature Most important, it was found that the formamido group, which is critical for the lesion recognition process by repair enzymes, is fixed in the cis-conformation in applar solvents such as chloroform. This conformation enables the formation of a hydrogen bond between the carbonyl oxygen of the formamide and the NH of the N-glycosidic bond within the framework of a seven-membered ring system. This has consequences for the recognition of the lesion by repair enzymes (hOGG1 and Fpg protein). These enzymes were so far believed to recognize the carbonyl group of the FapydGua lesion. Our investigations show that this carbonyl group is not readily accessible because it is almost buried in the dominating cis-conformation. In agreement with the recent X-ray structure of hOGG1 in complex with 8-oxo-7,8-dihydroquaninecontaining DNA, we can conclude that repair enzymes can contact both lesions only via the N(7)-H group, which is a hydrogen-bond acceptor in quanine. THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 74 RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:

2001:709363 CAPLUS 135:368343

DOCUMENT NUMBER: 135:368343
TITLE: The mechan

TITLE: The mechanism of action of DNA photolyases AUTHOR(S): Carell, T.; Burgdorf, L. T.; Kundu, L. M.;

Cichon, M.

CORPORATE SOURCE: Department of Chemistry, Philipps-University Marburg,

Marburg, D-35032, Germany Current Opinion in Chemical Biology (2001), 5(5),

SOURCE: Current Opinion in Chemical Bi 491-498

CODEN: COCBF4; ISSN: 1367-5931

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 43 refs. Structural anal., biochem., and model studies have provided new insights into the mechanism of action of photolyases. The light-driven electron and energy transfer events that lead to the photolyase-catalyzed repair of lethal, mutagenic, and carcinogenic UV-light-induced DNA lesions have all been examined in the past few years. REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:819021 CAPLUS

DOCUMENT NUMBER: 134:158975

TITLE: Self-repairing DNA based on a reductive electron

transfer through the base stack
AUTHOR(S): Schwogler, Anja; Burgdorf, Lars T.; Carell,

Thomas

CORPORATE SOURCE: Fachbereich Chemie, Philipps-Univ., Marburg, 35032,

Germany

SOURCE: Angewandte Chemie, International Edition (2000),

39(21), 3918-3920

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

AB DNA photolyases utilize light energy to initiate the repair of highly mutagenic UV-induced cyclobutane pyrimidine dimers that form the major photolesions in DNA. The basis of the repair reaction, which rescues many insects, fish, amphibians, and plants from UV-induced cell death and mutagenesis, is a light-induced electron transfer from a reduced and deprotonated flavin coenzyme to the DNA lesion. The lesion undergoes a spontaneous cycloreversion as its radical anion to the corresponding monomers. Although the general mechanism of the light-driven repair process is known, no information is currently available about the critical electron-donation process from the flavin donor to the dimer acceptor in the DNA strand. In particular, the question as to what extent the DNA double strand is able to mediate the transport of the electron in the base stack is still under debate. This question is directly linked to investigations of the electron hole transport properties of DNA. Hole transfer was recently shown to proceed over relatively large distances in an undisturbed DNA double strand. Expts. carried out recently provided compelling evidence that a hopping process in which quanosine bases (which react to form quanosine radical cations) act as stepping stones in the DNA double helix could be one basis for the seemingly distance independent hole transfer. A deeper understanding of oxidative damage to DNA and the design of DNA-based bioanal. devices is crucially dependent upon the elucidation of the electron- and hole-transfer properties of double-stranded DNA. Herein we report the preparation of DNA strands

containing a flavin building block and a cyclobutane thymidine dimer lesion. These doubly modified DNA strands show light-induced self-repairing properties and allowed insight to be gained into the ability of DNA to mediate a reductive (surplus) electron-transfer reaction.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 19 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:350039 CAPLUS

DOCUMENT NUMBER: 133:218952

TITLE: DNA repair: from model compounds to artificial enzymes

AUTHOR(S): Carell, Thomas; Burgdorf, Lars; Butenandt,

Jens; Epple, Robert; Schwogler, Anja

CORPORATE SOURCE: Department of Organic Chemistry, Swiss Federal

Institute of Technology, ETH-Zentrum, Zurich, CH-8092,

Switz.

Bioorganic Chemistry (1999), 242-254. Editor(s): SOURCE:

Diederichsen, Ulf. Wiley-VCH Verlag GmbH: Weinheim,

Germany. CODEN: 68ZOAX

Conference; General Review

DOCUMENT TYPE: LANGUAGE: English

A review, with 52 refs. The topics discussed include: the degradation and repair of genetic information; DNA photolyase repair enzymes; mechanistic investigations with model compds.; and the role of the 2nd cofactor.

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 20 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

1999:447533 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 131:88087

TITLE: Synthesis of DNA lesions and DNA-lesion-containing

oligonucleotides for DNA-repair studies

AUTHOR(S): Butenandt, Jens; Burgdorf, Lars Thore;

Carell, Thomas

CORPORATE SOURCE: Lab. Organische Chemie, ETH-Zentrum Zurich, Zurich,

CH-8092, Switz.

SOURCE: Synthesis (1999), (7), 1085-1105 CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 178 refs. In order to study the effect of DNA lesions on the structure of the DNA double helix, a variety of lesion building blocks were recently synthesized and incorporated into oligonucleotides. In addition, oligonucleotides which contain DNA lesions at specific sites are the basis for a detailed investigation of repair mechanisms that were developed by organisms in order to counteract the lethal effect of DNA damage. This review article describes the recent synthetic progress that has enabled the preparation of DNA lesion phosphor-amidite building blocks. The synthetic procedures employed for their preparation and the methods used to incorporate these building blocks into oligonucleotides are described.

The biol. effect of each particular lesion is briefly recapitulated. REFERENCE COUNT: 182 THERE ARE 182 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 21 OF 21 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:192842 CAPLUS

DOCUMENT NUMBER: 131:15260

TITLE: "Base flipping": photodamaged DNA-RNA duplexes are

poor substrates for photoreactivating DNA-repair

enzymes

AUTHOR(S): Butenandt, Jens; Burgdorf, Lars T.; Carell,

Thomas

CORPORATE SOURCE: Laboratorium fur Organische Chemie, ETH-Zentrum,

Zurich, CH-8092, Switz.

SOURCE: Angewandte Chemie, International Edition (1999),

38(5), 708-711

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

AR The cis-syn cyclobutane pyrimidine dimers (photodimers) are the main DNA lesions formed on irradiation of cells with UV light. They are responsible for cell death, the development of various skin cancers, and therefore represent a severe threat to all organisms that are exposed to sunlight. All organisms have developed DNA repair processes in order to remove UV-induced lesions from the genome and to overcome DNA damage. The observation that certain genome sites are repaired with greatly reduced efficiency, giving rise to mutation hot spots has shifted the investigation of the factors that determine the effectiveness of lesion recognition into the center of DNA repair research. It is currently believed that lesion-specific repair enzymes recognize structural alterations of the normal DNA duplex which are possibly caused by weakened hydrogen bonds and π -stacking interactions around a DNA lesion. Crystallog. data show that many repair enzymes subsequently "flip" the damaged base out of the DNA duplex for repair. This process could be influenced by the DNA packing, which may shield DNA lesions and by the local DNA sequence and conformation. First indication that DNA repair might be influenced by the duplex conformation stems from the discovery that dsDNA-specific repair enzymes remove lesions from DNA-RNA hybrids, which are in an atypical A-like conformation, with reduced efficiency. In order to learn if and to what extent the duplex conformation is able to influence the DNA-photolyase repair process, we investigated the extent to which A- and B-type double strands are destabilized by a photolesion, which has been incorporated site-specifically into the DNA strand. The repair was probed with a DNA-photolyase, which is believed to recognize the cis-syn photolesions in an extra-helical, "flipped-out" conformation. The thermodn. data reveal that photodimers significantly destabilize a

B-duplex but decrease the stability of an A-like duplex only to a small extent. The low destabilization was found to correlate with less efficient repair, which indicates that the local DNA conformation might modulate the DNA lesion "flipping" process.

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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chain nodes: 7 8 14 15 16 17 24
ring nodes: 1 2 3 4 5 6 9 10 11 12 13 18 19 20 21 22 23
chain bonds: 6-7 7-8 7-13 10-14 14-15 15-16 15-17 16-21 23-24
ring bonds: 1 1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-13 10-11 11-12 12-13 18-19 18-23 19-20 20-21 21-22 22-23
exact/norm bonds: 9-10 9-13 10-11 10-14 11-12 12-13 14-15 15-16 15-17 16-21
exact bonds: 6-7 7-8 7-13 23-24
normalized bonds: 1 12-2 13 14-15 18-23 19-20 20-21 21-22 22-23

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS

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=> s 12 L3

1 L2

=> d 13 ibib abs

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1002884 CAPLUS

DOCUMENT NUMBER: 143:306318

TITLE: Preparation of thiadiazole urea derivatives for use in controlling signal transduction of kinases

INVENTOR(S): Burgdorf, Lars; Buchstaller, Hans-Peter; Stieber, Frank; Anzali, Soheila; Amendt, Christiane; Greiner,

Hartmut; Grell, Matthias; Sirrenberg, Christian;

Zenke, Frank

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: Ger. Offen., 32 pp. CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| P | PATENT NO. | | | | | | | DATE | | APPLICATION NO. | | | | | | | DATE | | |
|--------|------------------------|---------|-----|-----|-------------|-------------|--------------------|------|------|-----------------|----------------|------|----------|----------|------|-----|----------|-----|----|
| | DE 102004009933 | | | | | A1 20050915 | | | | | | | | | | | | | |
| A | AU 2005219499 | | | | | A1 20050915 | | | | | | | 20050131 | | | | | | |
| C | CA | 2557303 | | | | | A1 20050915 | | | | CA 2 | 005- | 2 | 20050131 | | | | | |
| W | IO. | 2005 | 20 | | A1 20050915 | | | | WO 2 | 005- | EP90 | 8 | | 20050131 | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
| | | | CN, | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | |
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| | | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, | |
| | | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | |
| | | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | | |
| E | EΡ | 1720 | 846 | | | A1 | | 2006 | 1115 | EP 2005-701263 | | | | | | 2 | 20050131 | | |
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| | | | IS, | IT, | LI, | LT, | LU, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | | | |
| J | | | | | | | | | | | JP 2007-500082 | | | | | | 0050 | 131 | |
| Ü | US 2007191353 | | | | | | | 2007 | 0816 | | US 2 | 006- | 2 | 0060 | 825 | | | | |
| PRIORI | PRIORITY APPLN. INFO.: | | | | | | DE 2004-1020040099 | | | | | | | | 9933 | A 2 | 0040 | 226 | |
| | | | | | | | | | | | WO 2 | 005- | EP90 | 8 | 1 | 1 2 | 0050 | 131 | |
| | | | | | | | | | | | | | | | | | | | |

OTHER SOURCE(S): CASREACT 143:306318; MARPAT 143:306318

GI

AB Use of compds. I [Ar1 = (un)substituted Ph, naphthyl, biphenyl or heterocycle (substituted with 1-5 R1); Ar2 = (un)substituted Ph, naphthyl, biphenyl or heterocycle (substituted with 1-5 R2); Y = O, S, CHNO2, C(CN)2, NR4; Z = 0, S, CH2(CH2)n, (CH2)nCHA, CHA(CH2)n, C:0, CHOH, (CHA) nO, (CH2) nO, O(CHA) n, etc.; R1, R2 = A, Ar', OR3, OAr', SAr', N(R3) 2, NHAr', halogen, NO2, CN, (CH2)nCO2H, (CH2)nCON(R3)2, (CH2)nCONHR3, etc.; R3 = H, A, (CH2)nAr', R4 = H, CN, OH, A, (CH2)mAr', COR3, COAr', S(O)mA, S(0) mAr'; Ar' = (un) substituted Ph (optionally substituted 1-5 times with A, Ph, OH, OA, SHH, SA, OPh, SPh, NH2, NHA, NA2, NHPh, halogen, NO2, CN, (CH2)nCO2H), (CH2)nA, CHO, COA, S(O)mA, S(O)mPh, NHCOA, NHCOPh, NHSO2A, NHSO2Ph, SO2NH; Ph = (un)substituted (optionally substituted 1-5 times with A, halogen, CN, CO2R, CO2H, NH2, NO2, OH, OA); Het1 = (un)substituted heterocycle with 1- to 4-heteroatoms (N, O, S; optionally substituted 1 to 3 times with halogen, A, OA, CN, (CH2)nOH, (CH2)n-halogen, NH2, :NH, :NOH, :NOA, :O); A = C1-10-alkyl (whereby 1 - 7 H's can be replaced with F or C1); halogen = F, C1, Br, I; n=0-5; m=0, 1, 2] and their pharmaceutically acceptable salts, solvates, and stereoisomers, for the prophylaxis and/or treatment of diseases, with which the inhibition, control and/or modulation of the signal transduction of kinases, in particular the RAF kinases, play a role. A method for preparation of I comprises: (a) reaction of carbamic acid derivative II (L = OA, Cl, Br, I, OH derivative) with ArlNH2; or (b) carbamylation of thiadiazolamine III with Ar1NCO. Thus, 1-[5-(3,4-dimethoxybenzyl)-[1,3,4]-thiadiazol-2-yl]-3-[3-(trifluoromethoxy)phenyl]urea (IV) was prepared from (3,4dimethoxyphenyl)acetonitrile, via cyclocondensation with thiosemicarbazide in CF2CO2H to the 5-(3,4-dimethoxybenzyl)-[1,3,4]-thiadiazole, carbonylation with p-nitrophenyl chloroformate in CH2C12 containing pyridine followed by amidation with 3-(trifluoromethoxy)aniline in CH2C12 containing EtN(CHMe2)2.

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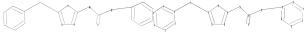
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chain nodes :

7 13 14 15 16

ring nodes :

1 2 3 4 5 6 8 9 10 11 12 17 18 19 20 21 22

chain bonds : 6-7 7-12 9-13 13-14 14-15 14-16 15-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-12 9-10 10-11 11-12 17-18 17-22 18-19 19-20 20-21 21-22

exact/norm bonds :

8-9 8-12 9-10 9-13 10-11 11-12 13-14 14-15 14-16 15-20

exact bonds :

6-7 7-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 17-18 17-22 18-19 19-20 20-21 21-22

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1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom

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=> s 16 L7 1 L6

=> d 17

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- AN 2006:413194 CAPLUS
- 145:95761 DN
- TI A Combination of Docking/Dynamics Simulations and Pharmacophoric Modeling To Discover New Dual c-Src/Abl Kinase Inhibitors
- Manetti, Fabrizio; Locatelli, Giada A.; Maga, Giovanni; Schenone, Silvia; Modugno, Michele; Forli, Stefano; Corelli, Federico; Botta, Maurizio
- Dipartimento Farmaco Chimico Tecnologico, Universita degli Studi di Siena, CS Siena, I-53100, Italy
- Journal of Medicinal Chemistry (2006), 49(11), 3278-3286 SO
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- DT Journal
- LA English
- RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT